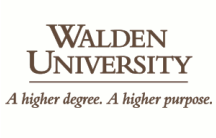

2016

Managing Acute Pain in Postoperative Surgical Patients

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This is to certify that the doctoral study by

Sabrina Gregory

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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2016

Abstract

Managing Acute Pain in Postoperative Surgical Patients

by

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MS, University of Phoenix, 2008

BS, Virginia Commonwealth University, 1996

Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University

October 2016

Abstract

Every year, millions of Americans suffer from either chronic or acute pain that results in tremendous healthcare cost, rehabilitation, and loss of work productivity. Pain is an unpleasant sensation associated with sensory and emotional experiences that can cause potential or actual tissue damage. One plausible solution to managing pain is the use of nonpharmacological modalities such as guided imagery. The purpose of this project was to determine if there was a difference in pain scores following pharmacological interventions and the use of guided imagery among postoperative same day surgical patients. Guided imagery is a nonpharmacological modality that uses pictures, music, and imaginary scenes to help heal the body in addition to using relaxation techniques and mental images for the management of pain. This project included the translation of evidence into practice using guided imagery on a 25-bed same day surgery unit ($N = 34$ patients), guided by Kolcaba's comfort theory. The findings of this project included using guided imagery for same day surgery patients who rated their pain greater than 4 on the traditional pain scale of one to ten, with one equaling no pain and ten equaling worst pain. The results of the evaluation showed a significant decrease in pain scores between premedication to postmedication ($p < 0.001$), premedication and postguided imagery ($p < 0.001$), and postmedication and postguided imaginary ($p < 0.001$). Guided imagery has been demonstrated to be efficient and cost effective methods to reducing pain. This project indicated that use of nonpharmacological and pharmacological interventions working together could be more effective for pain management in same day surgical patients.

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Dedication

I dedicate my work to my family, friends, and two special individuals whom without their support none of this would have been possible. Special thanks to my loving mother, Mildred Gregory, whose words of support and encouragement pushed me to reach for the stars. My two sons, Darren and Jordyn, who are the centers of my world and have bought me nothing but joy and happiness. Lastly, to my significant other, Kevin Hancock, you have been there through it all, and to you all I can say is I love you and thank you for your continued support and unconditional love.

I also dedicate my work to four special ladies (Dawn, Iris, Keisha, and Shaneeca) whose friendship had lifted me up during times when I did not want to move forward. So I say to my four sisters, thank you, and I love you, and I will always appreciate all that you have done for me.

Finally, I dedicate this work to Debbie Bolling and Deborah Zimmermann, two women who without their valued wisdom, loving support, and tough love; this would not have come to volition. Both of you have been the best cheerleaders, so I say thank you.

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I would never have been able to finish my project without the guidance of my chair committee members, mentor, and assistance from friends and support from my family.

I would like to express my deepest gratitude to my mentor and preceptor Dr. Deborah Zimmermann for her excellent guidance, caring, patience, and providing me with an environment to perform my project. I would also like to thank Debbie Bolling for the inspirational talks and support; without you, I would not have gotten this far.

Finally, I would like to thank my mother; your love has given me the courage and strength to fight and stand up for what I believe in and to know that no matter what, I could do whatever I set my mind too.

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Section 1: Nature of the Project

Introduction

Every year, millions of Americans suffer from either chronic or acute pain that results in tremendous healthcare cost, rehabilitation, and loss of work productivity. According to Gaskin and Richard (2011), "the incremental costs of medical care is due to pain and the indirect costs of pain is due to lower productivity associated with lost days and hours of work and lower wages" (p. 240). Incremental costs of pain range from $214 to $246 billion a year, which indicates that the cost of pain in healthcare is attributable to the impact of pain and interventions (Gaskin & Richard, 2011). However, the direct cost of medical treatment for pain was $47 billion in 2010, and 36% of the cost account for increases hospital stay (Gaskin & Richard, 2011).

Moreover, the evidence demonstrates that the annual cost of pain is steadily growing in this country and healthcare providers are challenged to reduce this cost (Gaskin & Richard, 2011). The cost of unmanaged pain can lead to longer hospital stays, increased rates of rehospitalization, loss of income, and loss of insurance coverage. On average, it is estimated that pain could cost $560 to 635 billion annually, an amount that equals about $2,000 for everyone living in the United States (Gaskin & Richard, 2011).

Pain is an unpleasant sensation associated with sensory and emotional experiences that can cause potential or actual tissue damage. It is operationally defined as "something that hurts the body" and is often described based on its intensity, location, and time that it started (Burhenn, Olausson, Villegas, & Kravits, 2014, p. 501). Pain may be described as "steady, throbbing, stabbing, aching, or pinching" (Penprase, Brunetto, Dahmani,

Forthoffer, & Kapoor, 2015, p. 95). One of the challenges of pain lies in the ability to manage it. Pain is traditionally based on the cause, the length of time, and inferred pathophysiology, which is useful to determine how to manage pain. However, given that pain is subjective and cannot be observed and that the response to pain can be observed via pain management scores as well as the patient's verbal or nonverbal cues, pain is often a challenge to manage (Li, Zhang, Yi, Tang, Wang, & Dong, 2014).

Evidence has shown that when pain is not managed effectively, it may affect the body's immune system. According to Dysvik, Kvaloy, and Natvig (2011), "nurses play a key role in pain management programs because the preferred orientation tends to be a holistic approach, with the implementation of self-management skills and coping" (p. 1061). Therefore, nurses play a significant role in the management of pain for patients in healthcare. One approach to managing pain is to measure it. The traditional method of measuring pain is the analog pain scale (Bozimowski, 2012).

The analog pain scale is a scale of 1 to 10, where 1 equals no pain and 10 worst equals pain. It is commonly used to assess and reassess pain, which allows nurses to implement a specific plan of care. The evidence also demonstrates that the practice of managing pain not only reduces cost across the healthcare continuum it also improves patients satisfaction (Bozimowski, 2012). One area where pain is a challenge is in the perioperative arena because pain can be detrimental to the recovery of surgical patients. Vadivelu, Mitra, and Narayan (2010) claimed, "preoperatively, one of the most common questions asked by patients pertains to the amount of pain they will experience after the surgery" (p. 12). Therefore, in most organizations, proper management of postoperative

pain relief is a major concern amongst healthcare workers as pain could increase the patient's length of stay and may require increased medication to reduce pain satisfaction scores.

One of the major factors affecting pain and pain relief is anxiety (Gonzales et al., 2010). An individual's ability to cope with pain is often based on their level of anxiety; therefore, the use of various techniques in the perioperative arena to reduce anxiety is often used to reduce postoperative pain. Also, it is beneficial to identify patients in the preoperative assessment phase of the patient care to identify substantial anxiety to determine which patients are at risk for developing pain after surgery.

Thus, given what is known about postoperative pain, this is a cause for concern. One plausible solution in addressing postoperative pain is guided imagery. Gonzales et al. (2010), posited that "guided imagery is a made-to-order intervention for unique demands that produces a calm state of focused, energized readiness that reduces discomfort while offering emotional support and a feeling of confidence in the body's inherent wisdom" (p. 182). Guided imagery is a nonpharmacological modality that uses pictures, music, and imaginary scenes to help heal the body. Guided imagery also includes relaxation techniques and mental images in the management of pain.

Guided imagery has been found to reduce anxiety, depression, and the length of hospital stay for surgical patients (Casida & Lemanski, 2010). Also, researchers have suggested that in conjunction with pharmacological interventions, guided imagery may help to reduce pain (Carrico, Peters, & Diokno, 2008). Finally, guided imagery has been shown to be one of the most effective nonpharmacological interventions in reducing

postoperative pain (Carrico, Peters, & Diokno, 2008). Thus, the purpose of this scholarly project was to determine if the use of guided imagery reduced pain among postoperative same day surgical patients.

Problem Statement

Pain is a cause for concern for today's health care system. The current cost of healthcare continues to increase every day. Therefore, healthcare providers are challenged to reduce pain in patients as a way to reduce cost and increase patient satisfaction. One area where pain management is explicitly critical is for same postoperative day surgical patients. Therefore, in this project, I attempted to address how the use of guided imagery along with pharmacological interventions may be a plausible solution to reducing pain in postoperative surgical patients.

The evidence supports that the use of pharmacological and nonpharmacological modalities is an efficient and cost effective method to reduce pain. According to Carrico et al. (2008), "guided imagery had demonstrated efficacy in reducing pain related to many conditions including postoperative pain" (p. 54). Evidence has also shown that utilization of guided imagery assists in focusing attention away from pain by increasing a sense of control. Finally, evidence has demonstrated that guided imagery along with pharmacological interventions improved pain and patient satisfaction.

Purpose Statement

The purpose of this scholarly project was to determine if there was a difference in pain scores following pharmacological interventions and the use of guided imagery among postoperative same day surgical patients.

Nature of the Doctoral Project

Pain is often assessed as the fifth vital sign and is reassessed based on what the patient states and the course of treatment. When a patient voices pain, providers respond using pharmacological agents. Then, the pain is reassessed 1 hour after the treatment to ensure that pain was being managed in the patient. In assessing for pain, it is important that healthcare providers monitor their attitudes toward patients' complaints of pain because this may lead to undertreatment of a patient's complaint of pain. Acute pain can ultimately become an unpleasant experience for postoperative patients. Therefore, when acute pain is unrelieved, this impairment has psychological consequences such as sleep deprivation. Therefore, the treatment and proper management of pain are significant in improving patient satisfaction and optimizing safe and effective care.

According to Burhenn et al. (2014), "guided imagery is described as imagining scenes, pictures, or experiences to help the body heal" (p. 501). Interventions such as guided imagery use mental images and relaxation techniques as a method to relieve pain. Current evidence supports the use of guided imagery in the management of pain for postoperative surgical patients. For example, the evidence suggests that pain ratings and intensity assist in determining goals of treatment as well as instituting pain-management modalities that focus on pharmacological and nonpharmacological interventions. Also, the evidence suggests that the use of pain medications as a single mode of therapy may fail to eliminate pain; therefore, a combination of approaches is needed for ultimate relief. Finally, the current evidence suggests the nurses express a desire to learn and educate patients about alternative modalities (Gonzales et al., 2010).

Pain management is a top priority for healthcare workers; therefore, other alternative methods are often recommended as a method to control pain, such as guided imagery. Therefore, guided imagery, as part of a pain relief program, is relevant to practice because the use of nonpharmacological interventions such as relaxation, music, and positioning are part of the policy and procedure of pain control. These methods allow for alternatives to medications that prevent overdosing, blood loss, and other adverse effects related to pain medications. Finally, over the years, the effects of guided imagery have been established to be a method that has a positive impact on health and patient outcomes.

Significance

Developing a guided imagery program to manage pain provides patient empowerment and overall has a positive impact on society. Patient outcomes improve significantly due to a pain management program. Nursing practices from an organizational perspective improve the dynamics of nursing as well as patient satisfaction. Thus, advanced nursing practice will ultimately improve the quality of life for same day surgical patients. The delivery of clinical practice is also exhibited via leadership, which leads to the empowerment of staff to provide safe and effective care. The implications of this change may lead to better patient outcomes via the reduction of narcotic dependency, thereby providing more useful modalities to manage pain that is useful inside and outside of the hospital setting.

Social change is widely used to influence patients' behaviors as well as improving communication with the patient, family, and healthcare providers. Therefore, the

implications of social change may have positive effects on the improvement of patient care. For instance, social change improves communication between the nursing staff and other interdisciplinary teams in the management of pain in surgical patients. Finally, because healthcare workers are a trusted source of health information, social change reinforces the belief among the healthcare industry.

Another social change in healthcare is the transparency and mandatory reporting of patient outcomes such as the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS). HCAHPS is a publicly recorded standardized survey of patients' perspectives of hospital care. Various studies demonstrated that despite interest in understanding pain management and interventions, patients continue to suffer from unacceptable levels of pain after surgery (Burhenn et al. 2014). Therefore, one method where pain is measured is via HCAHPS scores to measure how pain goals are being assessed and discussed verbally with patients to meet the overall patient care plan. Finally, social change improves pain management before surgery, but there are still opportunities for improving pain after surgery.

Definitions of Terms

Guided imagery. Any of various techniques used to guide another person or oneself in imagining sensations and especially in visualizing an image in the mind to bring about a desired physical response (Burhenn et al., 2014).

Pain. The physical feeling caused by disease, injury, or something that hurts the body (Burhenn et al., 2014).

Pain management. A medical approach that draws on disciplines in science and

alternative healing to study the prevention, diagnosis, and treatment of pain (Burhenn et al., 2014).

Same day surgery nurse. A specialized nurse who provides episodic care to patients for 24 hours or less in many different settings (Voda, 2011).

Assumptions and Limitations

The limitations of the project included the small sample size; the lack of patient engagement in learning the process weakens the results and do not allow for generalizability. The limitations also comprised data processing errors that could result from (a) participants failing to rate their pain honestly for whatever reasons, (b) participants' misunderstanding of the guided imagery process, and (c) mistakes in data collection due to nurses' failure to complete the data collection tool. Ideally, for successful implementation of this pain management project, patients must be made aware of both the emotional, physical, and safety benefits of the evidence-based project and probable outcomes. In addition, exploitation of a convenience sample, as opposed to a randomized sample strengthened the sample bias, thus restricting generalizability. A specific recommendation for this pain management program includes additional time to practice relaxation techniques using teaching methods that encourage return demonstration.

Other limitations included nursing skepticism that was often due to cultural background, work ethic, and values, including assumptions that guided imagery, is just meaningless (Casida & Lemanski, 2010). Many nurses assumed that the legitimacy of guided imagery was unsupported by the evidence, but others indicated that they would

like to learn more about this intervention. Finally, the assumption that guided imagery was not supported was often due to the lack of knowledge and skill to perform the intervention even if it was easily incorporated into practice.

Nurses who express skepticism or who are resistant to this alternative intervention denoted that negativity was often due to healthcare workers' inability to see guided imagery as a treatment option. However, the literature demonstrated that guided imagery was an option to pain management. For example, Casida and Lemanski (2010) conducted a study called complementary and alternative medicine, which concluded that guided imagery assists with the reduction of pain. Thus, there was hope that the part of the project would allow nurses to change their overall perception.

Summary

In summary, to improve pain management and patient satisfaction and decrease overall pain management cost, the global issue of pain management was addressed in this section. Pain continues to be an issue in healthcare evidenced by the data, which demonstrated that 80% of patients experience postoperative pain (Casida & Lemanski, 2010). Evidence regarding guided imagery demonstrates a positive impact on health as patients can invent their own imagery or use imagery created just for them; thus, guided imagery may be a plausible solution for pain management in postsurgical patients.

Section 2: Background and Context

Introduction

The purpose of this scholarly project was to determine if there was a difference in pain scores following pharmacological interventions and the use of guided imagery among postoperative same day surgical patients. The ultimate goal was to evaluate and create a pain management program for postoperative patients that would reduce pain levels in the surgical patient population. In this section of the project, I examine the themes of this literature review, including guided imagery pain, pain management, different types of pain modalities, recommended pain education, and analysis of the collected data.

Literature Search Strategy

The search mechanisms used to analyze literature research included the following databases: Walden University Library, Virginia Commonwealth University Library, CINAHL Plus, MEDLINE, OVID, Cochrane Database of Systematic Reviews, and the Joanna Briggs Institute EBP Database via the Walden Library. Key words used during the search included *pain, pain management, guided imagery, alternative pain interventions, pain management education, postoperative surgery, HCAHPS, PRC, NDNQI*, and *Joint Commission*. The search was limited to the English language, published in the last 10 years, literature reviews, clinical trials, practice trials, meta-analysis and randomized clinical trials. However, due to the overwhelming number of journal articles and research modalities, a Boolean search of *and* an *or* was used between some of the words. Fifteen articles were used to create the literature review for this

project.

Literature Review

The purpose of this project was to determine if there was a difference in pain scores following the use of pharmacological interventions and the implementation of a guided imagery program among postoperative surgical patients. The ability to integrate and synthesize literature is a requirement for doctoral prepared nurses (Im & Chang, 2012). In this section, the literature review supports that the connection between pain management and guided imagery provides an improvement in pain management, patient satisfaction, and cost. Even though there are advances in pain research, education and treatment options, pain is still poorly controlled among surgical patients. Guided imagery is the therapeutic process that facilitates working with the power of the imagination to positively affect mental attitude and potentiates positive outcomes (Casida & Lemanski, 2010). In addition, a combined approach to pain management, such as the use of guided imagery in conjunction with pharmacological interventions, also proved effective based on the evidence. Finally, pain management has been well reviewed and documented as a way to improve patient satisfaction.

Pain Management. The Joint Commission (2014) requires that pain is properly managed at all times based on the current standards and research for pain management. Therefore, the use of evidence-based practice to manage pain in a hospital setting is vital to effecting change in patient outcomes. Thus, evidence-based practice improves the quality of care, treatment outcomes, efficiency, and effectiveness that lead to improved patient outcomes. According to Manchikanti, (2008), “evidence-based practice

incorporates validity, reliability, clinical applicability, flexibility, and clarity through multidisciplinary processes" (p. 164). Therefore, the use of evidence-based postoperative pain assessment practice is imperative. Evidence-based practice in the management of pain offers information to current interventions so that developments are improved upon, and new ones are established during the postoperative phase.

Pain is a factor that influences an individual's ability to cope; however, the use of guided imagery is a technique that can be used to decrease pain. Therefore, it proves beneficial in the reduction of postoperative pain, medication usage, and discharge times. Furthermore, it may be beneficial to identify patients in the preoperative area who could be at risk for postoperative pain because these patients could benefit from alternative interventions that would ease surgical pain. Finally, the use of guided imagery to manage surgical pain before and after surgery can reduce surgical pain, length of stay, and use of drugs (Gonzales et al., 2010, p. 185).

Pain and somatic manifestations of anxiety are two of the most common reasons that people consult a physician (Brennan, Carr, & Cousins, 2007), yet frequently these problems are inadequately treated. Failure to provide relief from pain and anxiety disorders exacts an enormous social cost from lost productivity, needless suffering, and excessive health care expenditures. Acute pain is estimated to affect 15% to 30% of the general population (Helm, 2014). Pain management is the most common force that drives patients to seek prescriptive medications. The extent of pain is a very subjective phenomenon, and many health care professionals have difficulty evaluating pain.

Pain can be masked by stoic behaviors, exaggerated by hysterics, or disguised by coexistent psychological problems. It becomes very difficult to assess the difference between patients driven by pain and those with other motives. Most patients complaining of pain are not seeking a high euphoric state but relief from disabling or unbearable discomfort (Gerhardt, 2004). However, among the patients experiencing pain are individuals drug seeking to address addictions or to provide an illicit income from the sale of controlled medications (Gerhardt, 2004). Hence, this biases healthcare workers and reduces patient creditability when addressing pain.

Pain is now appreciated to be ubiquitous yet often undertreated and complex yet manageable. The unreasonable failure to treat pain is an unethical breach of human rights. At the same time as the global pain community has declared pain management to be a human right. Worldwide the palliative care community has likewise referred to palliative care as a fundamental right (Brennan et. al., 2007).

The right to pain management has a multidimensional foundation in law at the international, national and personal levels. Regarding pain management, all four main principles of bioethics such as autonomy, beneficence, nonmaleficence, and virtue have their correlates in the law. Indeed, the earliest articulations of the responsibilities of doctors to their patients are not legal, but ethical. The right to adequate pain management emerges from and is directly founded upon the duty of the physician to act ethically. In a legal sense, the strongest parallel to this ethical stance is the law of negligence. One aspect of this duty is the provision of reasonable treatment to patients (Brennan et. al., 2007). The bioethical principle of beneficence, to act for the good of the patient, and the

neighborhood principle of avoiding negligence derive from the same wellspring: The doctor has a duty to the patient to act in good faith, and patients have a right to expect the doctor to act always in good faith (Brennan, Carr, & Cousins, 2007).

Butts and Rich (2008) stated that "nurses are in a unique position to act as patient advocates in bridging a fragmentary divide by providing education and valuable psychological and spiritual care, counseling, and support holistic care" (p. 3). According to Gadow, an advocate of Restorative Nursing, the nurse is the "existential advocate there to help patients recognize and realize their best selves, given their situation" (as cited in Bishop & Scudder, 2001). Gadow explored advocacy as the basis for nursing ethics or the philosophical foundation of nursing. Doctors use motivational techniques to gain or regain control over the management of their patient's pain medication regime and improve their therapeutic relationship. Therefore, the implementation of guided imagery can only enhance patient care across the healthcare continuum. The provider "maintains an attitude of unconditional positive regard for a patient" (Butts & Rich, 2008, p. 2). Together the nurse and physician must collaborate, demonstrate knowledge, and effective practice regarding pain management for optimal patient care.

Measuring Pain. During the postsurgical phase, pain assessment and reassessment would be as simplistic as possible to complete. However, due to the types of interventions such as pharmacological and non-pharmacological interventions, pain is assessed based on the intensity, which was included in every pain assessment. There are several tools that can provide a numeric rating to pain intensity however for this project the analog pain scale-rating (0-10) tool was used (Helm, 2014, p. 2). The selection of this

pain assessment tool was used during the preoperative phase to ensure that patients understood the scale. Finally, the selection of this tool depended on the patient's age, physical, emotional, and cognitive status.

The use of the analog pain scale proved to be reliable, and patients appeared to have a basic understanding of the pain assessment tool. Also, use of the analog pain scale is easy to use, and the evidence has demonstrated that it is a valid tool. The analog pain scale has also proven to have a high consistency rate among patients. Lastly, the tool it easier to administer and document and gives patients a better understanding of how pain is rated and managed effectively (Koch, 2012).

Overall, surgery is a stressful period in an individual's life, and recent literature regarding pain management and the potential impact on patient outcomes had proven to be difficult. However, when guided imagery is used as a coping mechanism before surgery, it reduced patient's postoperative pain levels. Also, when pain is not managed appropriately it lead to prolonging hospital stays, decreased patient satisfaction, and increased pain medications. Lastly, the evidence demonstrates that using guided imagery as an alternative intervention improved patient outcomes (Gonzales et. al., 2010).

Patient Satisfaction. There is a connection between pain management and patient satisfaction. Patient satisfaction is considered to be an indicator of pain management (Glowacki, 2015). Therefore, patient dissatisfaction in regards to managing pain can negatively impact hospital performance ratings. Also, the services provided by anesthesia assess the quality of perioperative pain management based on the reporting of patient satisfaction. Finally, patient satisfaction is the true basis for positive patient

outcomes it is ethically and morally irresponsible for healthcare workers not to provide the best outcomes possible for their patients.

Overall, the measurement of patient satisfaction may rely on total satisfaction that included guided imagery and the use of pharmacological interventions. The literature suggested that pain management was closely associated with patient satisfaction along with the interventions and protocols. According to Bozimowski, (2012), "setting and attaining goals related to care leads to patient satisfaction" (p. 186). Therefore, increased knowledge regarding guided imagery as a mechanism to reduce pain may be considered a valuable tool in the improvement of patient satisfaction scores. Finally, when patients have a basic understanding regarding pain management, patient satisfaction scores improved based on the evidence.

Hence, the development of a guided imagery program may improve patient satisfaction across the healthcare continuum. Translating a guided imagery program into practice is essential to positive patient outcomes for pain management. To improve patient satisfaction and reduce pain in postoperative patients, nurses were trained on the use of guided imagery (Dysvik, Kvalov, & Natvig, 2011). Also, the nursing staff demonstrated an understanding of guided imagery to ensure that the nursing staff was educating patients in the same manner. Finally, the translation of this program into practice worked to develop a better understanding of managing pain for this patient population as described in the evidence based study utilizing guided imagery for pain control (Burhenn et al., 2014).

Guided Imagery. Guided imagery concentrates on empowerment and relaxation via sounds, images, and music and for centuries it had been used to decrease pain and anxiety. The use of guided imagery demonstrates the ability to support the physiological and psychological wellness for patients. According to Burhenn, et al., 2014, "a typical guided imagery intervention uses relaxation techniques and mental images" (p.501). Therefore, it was based on the idea that the mind and body were linked together because all of the senses were intertwined. Burhenn (2014) demonstrated that guided imagery was successful in several pilot studies. In one study, the nurses used guided imagery as a measure of cognitive interventions and the preliminary evidence indicated that guided imagery is effective in the management of stress, anxiety, pain, and depression (Burhenn et al., 2014). Nurses who provided guided imagery indicated that their experiences were positive and there was a reciprocal benefit for utilizing guided imagery as an intervention such as personal calmness, relaxation, and internal satisfaction from providing exceptional quality care to patients (Gonzales et al., 2010, p. 183).

Cost Perspective. Guided imagery is a simple, cost-effective intervention that was used during the patient's hospital stay and after discharge. Therefore, the implementation of guided imagery for managing surgical patients pain was cost-effective because when pain was managed it reduced the average length of stay. Also, guided imagery reduced average pharmacy costs as well as pain medication cost while maintaining overall patient satisfaction with the treatment and care plan. Finally, the evidence demonstrated that guided imagery could reduce preoperative anxiety and

postoperative pain among surgical patients, which ultimately was a cost-effective measure to managing surgical pain (Gonzales et. al., 2010).

Educational training of nurses included the use of guided imagery to ensure proficient performance and consistency of the technique in the practice setting. Guided imagery was incorporated into the nursing care plan that would improve patient care. Proficiency in the implementation of guided imagery was easily accomplished through proper training in the practicum setting. For those registered nurses who were provided the on-the-job training and education with return demonstration the goal to manage patient pain could be accomplished after the education of the nursing staff.

The cost for managing pain continues to skyrocket in this country. Due to loss wages and hospital readmissions, the cost of pain management had tripled over the last decade. Currently, pain impacts millions of lives and costs this country billions of dollars annually. The literature is overflowing with the connection between guided imagery and cost effectiveness (Carrico, Peters, & Diokno, 2008). Thus, it was important to recognize that the implementation of guided imagery for pain management was a lot more cost effective than pharmacological interventions (Casida & Lemanski, 2010).

Current evidence suggests that guided imagery is a cost effective intervention because it gives patients a greater sense of control over the management of their pain. As evidenced by a benefit of an integrated and holistic approach that incudes increased rates for patients to return to work, reduction in health care cost, and improved health-related quality of life. According to Gonzalez et al., 2014, “the average hospital stay is 1.5 days shorter with the utilization of guided imagery, and direct hospital cost is $1,982 less.

This statistical evidence indicated that the technique of guided imagery gave patients a cost-effective, simple and beneficial means of controlling and managing surgical pain (Bozimowski, 2012, p. 188). Finally, the goal of the evidence was to determine if guided imagery was an effective intervention as well as a cost-effective measure.

Concepts, Models, and Theories

The theoretical framework used for this project is Kolcaba's comfort theory. The use of this theoretical framework describes the process of meeting the comforting needs of the patient experience. The comfort theory not only addresses the patient's needs but the family's needs as well as a means of enhancing comfort. The design of this theory measures the needs via assessments and reassessment of the patient's comfort levels after implementation of interventions. Finally, the use of this theoretical framework was used to describe patient's pain levels that I incorporated into the care plan.

The current tenants of Kolcaba's comfort theory included an immediate state of relief, ease, and transcendence that is addressed in the context of physical, psychospiritual, sociocultural, and environmental that this project encompasses the management of pain in postoperative surgical patients (Kolcaba, 2010, p. 1). For instance, in the perioperative setting pain relief was a key component for surgical patients because patients had a right to have a specific discomfort relieved or alleviated. Also, comfort for patients was eased and allowed for contentment during hospitalization and was often based on an individual's previous experience. For example, there was uncertainty regarding surgical outcomes so patients wanted to know that their pain would be relieved after a physical experience. Thus, nurses could often minimize or prevent

pain by utilizing alternative modalities to pain relief. Lastly, transcendence played a major role in comfort because it encompasses meeting the needs of the patient's. For instance, nurses assisted patients in the use of guided imagery when pain persisted despite pharmacological interventions.

Summary

This section of the project reviewed the literature, theoretical framework, and the literature search strategies. Also, this section supports how a guided imagery program supported pain management in postoperative patients as well as improved patient satisfaction and cost. Kolcaba's comfort theory was discussed in this section as a measure to meet the patient's need to improve the overall surgical experience. Finally, this section discussed the different search methods used to analyze the current literature. The next section of this project addresses the various search methods used to analyze the current literature.

Section 3: Collection and Analysis of Evidence

Introduction

The purpose of this project was to determine if there was a difference in pain scores following the use of pharmacological interventions and the implementation of a guided imagery program among postoperative surgical patients.

Project Design

Following Institutional and Walden IRB approval (12-28-15-0474921), patients who were scheduled for elective surgery in the same day surgery unit were recruited to participate in the project. To optimize participation, participants for the project were recruited with the use of the surgical schedule. Patients were called preoperatively, and in addition to the preoperative surgical education, they were asked if they were willing to participate in this project. Those individuals who responded positively were then consented to participate.

Consented patients were asked their initial pain scores using the analog pain scale, and providers responded with appropriate pharmacological interventions. After 1 hour, the provider reassessed the pain score and implemented the use of guided imagery. Finally, after the implementation of guided imagery, the provider reassessed the pain score within 1 hour and reevaluated the pain scores. Measures were taken to ensure ethical protection of participants, including obtaining voluntary consent during preoperative calls to patients the day of surgery as well. Also, proper education for staff on the use of guided imagery was evaluated to ensure that it was being used correctly.

Population

The participants of this program were a convenience sample of 34 surgical patients who included the general orthopedic population in same day surgery patients located at the Virginia Commonwealth University Health System, formerly known as the Medical College of Virginia, which was the only academic medical center located in central Virginia. This population was chosen because as a Level I Trauma center, there were over 20 different surgical specialties, so the type of surgery often determined the level of pain a patient would experience. Inclusion criteria were age 18 and over, and exclusion criteria included patients under the age of 18.

Sampling

Using a significance criterion of .05, power of .80, and a sample effect size of .50 (medium effect size), it was estimated that a sample size of 34 was required to demonstrate a difference between each measure that included the initial pain rating, pain medication, and the use of guided imagery.

Data Collection

A data collection tool was created to collect the data. The tool included four demographic variables: age, gender, race, and educational level and type of surgery and three pain scores (premedication, postmedication, and postguided imagery). To validate this tool, the data were collected and reviewed by the organization's pain expert's anesthesia pain service and the Center for Integrative Pain Management Committee, who concluded that the pain tool would provide valid data regarding pain management. Therefore, strategies used to ensure validity, reliability, and consistencies were based on

the pain scores (premedicated, postmedication, and postguided imagery). For instance, patients were asked to rate their pain on a scale of 0 to 10, and the information was recorded.

After receiving pharmacological interventions, the patients' pain was reassessed. Thus, if the patients still rated their pain 5 or greater, guided imagery was implemented, and then pain was reassessed after 1 hour. Lastly, to ensure that patients understood the pain scale, the level of education was recorded to ensure that the assessment tool and the pain scale were explained accordingly and that patients had a clear understanding of the process. The following was a sample of the data tool used for measuring the effectiveness of guided imagery in postoperative surgical patients (see Appendix I).

Each nurse was oriented to the guided imagery process and trained on how to use the three interventions for guided imagery to assist in managing surgical patients' pain. Three interventions were chosen to reduce confusion for patients because often when to many choices are given, it can decrease participation for those being asked to participate (Glowacki, 2015). Also, the three interventions that were chosen were based on nursing feedback and current evidence. To ensure that the nurses understood the process, each nurse had to demonstrate the process after orientation to confirm that they delivered the intervention in an identical manner. Also, the nurses were given a guided imagery folder that outlined the guided imagery interventions as well as a 30-minute written out review for the nursing staff. Lastly, a handout was distributed to patients that explained the guided imagery process and the types of interventions that would be used during their

postoperative stay in order to ensure that all patients' questions and concerns were addressed prior to the implementation process.

Instrument

The instrumentation used to collect the data for this project was the analog pain scale of 0 to 10. This numeric scale allowed patients to rate pain on a scale of 0, which was no pain through 10, which was the worse pain imaginable. The analog pain scale was used by patients by asking how they would rate their pain on a scale of 0 to10 where 0 was no pain and 10 was the worst. When the patient's rate pain less than 4, interventions were not used, whereas for any score rated above 5 interventions were provided. This instrument provided the diagnostic tool needed to assess the severity and quality of pain experienced by postoperative surgical patients. Finally, this instrument was easy to administer, score, and comprehend; therefore, compliance with use was better than other scoring systems.

A review of the literature consistently demonstrated the high validity of the analog scale (Brennan et al., 2007). For example, various one-dimensional and multidimensional scales were developed to assess pain. In surgical patients, the most commonly used scale was the 0 to 10 analog pain scale, and based on several studies, this tool proved reliable and valid. For instance, the visual analog scale and numeric rating studies were used to determine the efficacy of pain management regimens in patients with acute postoperative pain. Reliability and validity of the analog tool used to assess patients' pain scores were based on the responses from several studies, which denoted that the correlation between the pain scales improved patient outcomes (Gonzales et. al.,

2010).

Intervention Process

The guided imagery session for this project regarding the process included the development of a folder that held the pilot materials. The guided imagery folder included an outline that described the guided imagery intervention to the patient, a 30-minute guided imagery intervention was written out for the nurse to review, a short data-collection tool was used to document the demographics and pain levels of the patients, a handout was distributed to patients explaining guided imagery, and a laminated sign that said "please do not disturb; relaxation in progress" was hung on the patient's door.

Data Analysis

Descriptive statistics were used to describe the sample. Based on the linearity and normality of the data and presence of outliers, repeated measures ANOVA was used to determine if there was a difference in pain scores (pre- and postmedication administration and postguided imaginary) among postop patients.

Evaluation Plan

The project evaluation plan consisted of a formative evaluation for the purpose of gaining insight on managing pain with the use of pharmacological interventions and guided imagery. When patients rated that pain levels were less than 4, then the nurse knew that the program was working. Even though many strategies have been used to manage pain across the healthcare continuum, the overall goal was to ensure that patient's pain levels were tolerable.

Summary

Improving patient outcomes to improve quality of care was essential measure for healthcare workers. Thus, in this section, the power analysis population/sample size: data collection/instrument, validity/reliability of the instrument, and the evaluation plan was discussed. This program had implications to patient satisfaction, patient empowerment, and improved patient care.

Section 4: Findings and Recommendations

Introduction

The purpose of this DNP project was to determine if there was a difference in pain scores following the use of pharmacological interventions and the implementation of a guided imagery program among postoperative surgical patients. The project was implemented on a 24-hour observation perioperative surgical same day surgery unit. Descriptive statistics were used to analyze the data. The results showed that there was a significant decrease in pain scores between premedication, postguided imagery, and postmedication. In this section, the findings, the sources of evidence and how they were obtained as well as the analytical strategies used for this project were summarized.

Findings

The average age of the participants was 44.5 years (*SD* = 12.9) with a range of 22 to 67 years of age. Thirty-nine percent (*n* = 13) of the participants were male, with African-Americans representing close to 59% (*n* = 20) of the sample. The majority of the participants (*n* = 16) had a high school education, with five participants having less than a high school education. Each participant's pain scores were measured on the analog pain scale three times during their postoperative recovery. On average, premedication pain scores were 7.0 (*SD* = 1.23), postmedication pain scores were 4.94 (*SD* = 1.63), and postguided imagery pain scores were 1.64 (*SD* = 1.39) (Table 1).

A one-way repeated measure ANOVA with a Greenhouse-Geisser correction was used to estimate if there was a difference in pain scores over time. Mauchly's Test of Sphericity indicated that the assumption of sphericity had not been violated (χ^2 (2) = 2.60, p = 0.271) There was a statistically significant difference in pain scores across time (F {1.85, 48.90} = 334.55, $p < 0.01$). Posthoc tests using a Bonferroni correction revealed that there was a statistically significant decrease in pain scores between premedication to postmedication ($p < 0.001$), premedication and postguided imaginary ($p < 0.001$), and postmedication and postguided imaginary ($p < 0.001$) (Table 2).

Discussion of Results

Pain is a risk factor for the development of poor patient outcomes and can lead to a decrease in trust between the nurse and patient. The primary analysis involved three groups (premedication, postmedication, and guided imagery) to determine if there was a difference in postoperative surgical patients. This evidence based practice project demonstrated that the use of pharmacological and nonpharmacological interventions could have a positive impact on pain management in postoperative surgical patients. Burhenn et al. (2014) asserted that "the policy and procedure on pain control notes that the use of non-drug interventions such as music, heat/cold, imagery as part of a pain relief program is essential to pain management" (p. 501). The results demonstrated that the use of guided imagery and pharmacological interventions were equivalent methods for the treatment of pain management in postoperative surgical patients. In addition, the two groups, postmedication and guided imagery, were shown to be more effective in the

management of pain after surgery based on the comparison of the pain scores before and after surgery.

In a more recent study, guided imagery was identified as having a positive impact on pain control in postoperative surgical patients (Gonzales et al., 2010). Through the use of postmedication and guided imagery for patients, the nursing staff was considered the first and foremost primary beneficiary. Nurses who are responsible for assessing pain must choose the appropriate interventions for the clinical situation. Therefore, nurses are responsible for the most critical aspects of pain assessment that is completed every hour and includes reassessments and proper interventions until a tolerable pain threshold is met. Nurses were trained to determine if the patients would benefit from having these two interventions implemented and/or if other measures were needed to manage patients' pain after surgery. The patient and their families benefit from the nurse who has learned the guided imagery intervention.

Results also concluded that there was a decrease in pain between premedication and postmedication as well as postmedication to postguided imagery, which was indicative that postoperative pain was being managed well among surgical patients due to patient involvement in plan of care. According to Glowacki (2015), "a thorough pain history and shared goal setting are critical components of effective pain management that lead to beneficial outcomes" (p. 36). Hence, patient outcomes are dependent on their knowledge of how they manage their pain and what actually works for them. The use of patient's input has succeeded as a major contribution of pain assessments and interventions when treating same day surgical patients. Same day surgical patient's

engagement in their health care experience leads to improve health outcomes, better patient care, and lower costs. Therefore, promoting patient engagement ultimately works to benefit the patient as well as the organization.

The Affordable Care Act (2010) identified patient engagement as an integral component of quality of life and patient centered care. Over the course of several years, federal and state policy makers have embraced patient engagement as a strategy to improve quality and decrease health care cost. Therefore, patient engagement has become central to improving patient outcomes because it gives patients the tools needed to understand different interventions used for treatment. Lastly, patient engagement has been directly linked to improvement of outcomes; thus, the level of patient interaction during this project demonstrated that patient involvement during the plan of care improved patient outcomes.

In 2011, the National Database of Nursing Quality Indicators (NDNQI) conducted a study on improving pain management at the level of medical-surgical patients. The goal of the study was to implement and evaluate a program that would measure and improve patient pain processes and outcomes that lead to improving patient satisfaction. The study included implementing daily pain rounds, alternative interventions, and pain education for patients and their families. Incorporating nonpharmacological modalities into practice such as hourly rounding and a pain management team worked to improve both nursing and pharmacological evidence based practices as a result of the NDNQI study. Various pain interventions subsequently led to significantly improve patient outcomes, improved pain management methods, and improved patient satisfaction

(Glowacki, 2015). Based on the results of this project, guided imagery and nonpharmacological interventions did improve patient satisfaction and improve pain in the process and the studies research solidified this inference.

The goal of managing pain in postoperative patient is to ensure that the patient is comfortable and that the pain is tolerable. Hence, the purpose of this project was to ensure that surgical patients were relieved of suffering after surgery to decrease hospital stay and achieve patient satisfaction. In the past, perioperative pain management relied solely on pharmacological interventions; however, evidence has proven that a better approach to pain management involves a multimodal approach using both pharmacological and nonpharmacological interventions. Thus, incorporating guided imagery into practice is a notable progressive innovation that focuses on patient care and improved outcomes.

Recommendations

To enhance the use of guided imagery for pain management, recommendations were established as methods to improve pain management. This study recommendation was used to promote the implementation of guided imagery such as staff education, patient and family education, and alternative resources. Implementing a pain management clinic within the organization was also recommended as a method to clinical practice. First, nurses are essential to promoting pain management in postoperative patients. Providing education to nurses and other healthcare providers about the benefits of guided imagery provide mechanisms that are needed to effectively manage postoperative pain. Gropelli and Sharer (2013) found that education of nurses had an

impact on appropriate pain management and that the expert nurse was more likely to provide more effective pain management. Therefore, one recommendation is to add a 24-hour scheduled play channel with varied guided imagery exercises that are available in English and Spanish.

The sessions would begin every 30 minutes and be added to evening programs to help patients sleep. This program would be ideal for a video-on-demand system that could deliver on an interactive patient care platform such as Cerner, the organization's electronic system. Thus, introducing this recommended program to patients and families reflects the commitment of the staff and organization. The establishment includes interdisciplinary teams who will focus on the improvement of pain as well as identify recommendations for improvement.

Education of health care providers about guided imagery can enhance compliance with treatment plans. As healthcare workers, it is imperative to develop individualized treatment recommendations for patients and provide education on the benefits of adherence to the care plan. According to Koch (2012), "patients play a huge role in pain management and it is important that patients are educated and understand their condition (p. 189). Lastly, the process of incorporating a pain management clinic within the organization will require a comprehensive approach to pain management by achieving fundamental system changes. As a result of these findings, it was recommended that guided imagery be incorporated into daily practice throughout the organization to keep all disciplines abreast of current evidence in the proper management of pain control.

To incorporate guided imagery into practice, another recommendation includes the purchase of CD players and special compact disc (CD) that is provided by the organization for patients to listen too after surgery. The CD will have a unique blend of environmental sounds and relaxation music that will assist in helping patients to relax and sleep during evening hours while easing pain after surgery. Finally, the last recommendation would the development of the Center for Interactive Pain Management Clinic that would be used to incorporate guided imagery practices along with aromatherapy by providing preoperative and postoperative pain management to patients. In addition, the enlistment of a chronic pain management physician to work along with the acute pain service team. Surgical patients would have schedule appointments before surgery to address pain management initiatives and scheduled appointments after surgery to ensure that their pain is being managed and to see if changes in the care plan are needed. This type of intervention has shown promise in changing pain perception in postoperative pain management, and the recommendations have shown to be cost effective and safe.

Discussion of Findings in the Literature

The main purpose of this project was to analyze whether or not guided imagery would be beneficial in the reduction of pain in postoperative surgical patients. Overall, pain scores did decrease with the use of guided imagery (Table 2). The project was consistent with evidence-based practice methods such as utilizing music therapy, hand massages, and meditation as interventions to assist in reducing pain so that it was tolerable for the surgical procedure. According to Tabish (2008), "the use of alternative

medicine appears to be increasing" (p. 5). For instance, the use of alternative interventions (music therapy, massages, and meditation) have risen from 36% in 2002 to 38% by 2007 and has steadily increased over the years (Tabish, 2008, p. 5).

A finding in this study also included why feedback to nurses can help to improve standards of practice. The nursing staff identified a need to improve pain management for postoperative surgical patients because often postoperative patients do not have pain medications ordered once they leave the recovery area. An action plan that included the use of guided imagery as an intervention to pain management was submitted to the operating room committee when patient satisfaction scores demonstrated that patients' pain was not being managed to a level that was tolerable based on the type of surgical procedures. Lastly, the literature suggested that the recognition of pain management was a key component to patient centered care because both non-pharmacological and pharmacological interventions such as massage therapy, music therapy, and relaxation therapy were strategies that reduced pain in surgical patients. Hence, one can conclude that the use of guided imagery along with pharmacological interventions is a key method to the reduction of pain in postoperative surgical patients. The results of this project provided solid evidence of the correlation between pain management and guided imagery as an effective intervention for postoperative patients.

Implications for Practice, Research, and Social Change

The planning for developing interventions for this project involved the use of four night shift nurses who assessed that postoperative patients often did not have pain medications ordered after surgery which are not unusual for this unit because surgeons

are often still in the operating room and not available to enter orders which is an issue that the department is working to change. Therefore, guidelines for a structured implementation of this pain management initiative included: a guided imagery folder with an outline that described the three guided imagery interventions to the patients, a handout for the patient that explained what guided imagery involved, and laminated signs that stated "please do not disturb; relaxation in progress" which was hung on each patient door. These guidelines lead to the development of policy changes within the department. For instance, patients would no longer leave the postanesthesia care unit until postoperative orders were placed before the arrival to 23-hour observation. In addition, patients must meet pain management criteria prior to discharge home that is a rating of 4 or less on the analog pain scale. Finally, all interns and residents had completed a competency on guided imagery for pain management for surgical patients in order to improve the knowledge base regarding pain management. Once the interns and residents demonstrate an understanding of guided imagery, the nursing staff was able to move forward with implementing these interventions as a way to manage postoperative pain.

Social Change

The goal for the doctorally prepared nurse is to possess the ability to translate evidence into practice to improve patient outcomes. Applying this concept to patient care works to provide defendable health care delivery by providing patient empowerment, which ultimately would have a positive impact on society. Improved patient outcomes were significant for apparent reasons. Pain management was always the priority in surgical cases. Therefore, guided imagery at an organizational level worked to identify

not only surgical patients who experience pain but also all patients who was admitted to the health care system. Thus, this change could lead to better patient outcomes via the reduction of narcotic dependency thereby providing more useful modalities to manage pain that were useful inside and outside of the hospital setting.

Project Strengths and Limitations

Strengths. The project design included strategies to integrate communication, education, training, and demonstration of guided imagery to improve pain management among postoperative surgical patients. Kolcaba's comfort theory supported this project's method of assessing the effectiveness of implementing (guided imagery) to strengthen the nurses understanding of pain management. Kolcaba's comfort theory also compliments other nursing models because of its non-judgmental and holistic approach to pain management. This theory considers the wholeness of the patient and interactions from the environment that the patients could encounter on a daily basis.

The theory also allowed for the nurses to assess how patients approached and evaluated the use of guided imagery as it related to their pain. Providing participants with guided imagery allowed them to maintain a state of wellness. Other strengths of utilizing guided imagery include prolonged health benefits and learned techniques during hospital stays that can be used after discharge. Finally, the depth of this intervention is infinite in that it could translate to many areas of the organization including outpatient settings.

Design strengths for this project were considered valid and practical. The quasi-experimental design explored the effect of guided imagery on patient outcomes. The

advantages of this design included approaches that reduced time and resources, as well as threats too validity, could be identified and addressed to reduce the impact. The design of this project was more feasible given the time and logistical constraints. The design can also be done after an intervention is completed, including the absence of baseline data.

Limitations. The limitations of the project involved several key barriers to utilizing the quasi-experimental design. First, the design did not account for any preexisting factors such as patients dealing with chronic pain. Next, there was no random assignment of who would be involved in the project thereby creating a potential problem with internal validity. Lastly, due to possible problem with human error a true determination of cause-and-effect could not be determined for this project. Thus, limitations of statistical analyses may not be meaningful due to the lack of randomization and the threats to internal validity to incorporate guided imagery into practice.

Summary

This section of this project reviewed the findings, discussion of results and literature and implications of social change. In addition, this section supported how a guided imagery program supports pain management in postoperative patients as well as improve patient satisfaction and cost. Also, Kolcaba's comfort theory was discussed in this section as a measure to focus on the desired outcomes utilizing a holistic approach to improving the overall surgical experience. Finally, this section discussed the literature findings that were used to improve pain in surgical patients. The next section of this project will address the dissemination plan of the project.

Section 5: Dissemination Plan

Analysis of Self

Maya Angelou wrote my favorite poem, Still I Rise, and I believe that as adults in the mist of all the bad, we can rise up and do whatever we want to do in life. Becoming a nurse has always been a dream of mine since I was 9 years old. When I was 9 years old, my grandfather died from emphysema and even though I wanted to help him, I could not, so my desire to help others grew stronger as I got older. However, my plans to become a nurse were delayed because I was a single mother who needed to work. I continued my education while holding down two jobs, and I graduated with a Bachelors of Science in Psychology in 1996. My decision to return to school to become a nurse happened when some of my coworkers were killed in the 2001 terrorist attack, and I realized that I needed to complete my dream of becoming a nurse so that I could help others. I always knew that this was my destiny and that I would achieve this goal if I set my mind to it. I applied to nursing school and was accepted and graduated in 2005, and then I decided to go back to school and received my Master's Degree in Nursing 2008. Once I received my Master's, I decided that I wanted to give back and teach others, so I have been adjunct faculty at our nursing school. The decision to go back to school and work on my doctoral degree was not an easy one; however, continued education is the key to professional growth. In addition, it has always been my vision to go as far as I can in my career, and as an advanced practice nurse and leader, my skills and knowledge have grown and will continue to grow for years to come.

Role as a Scholar

As a nurse all I want to do is make a difference in the lives of others. Being able to recognize my ability to speak up gives me the opportunity to improve patient care. My goal is to inform healthcare providers about the benefits and improved outcomes of implementing a guided program into practice that will help to improve patient care. I plan to continue with the advancement of my profession by becoming more involved in politics to enhance the advancement of nursing practices as well as advocating for improved health care. My research interest includes developing a significant tool that measures pain and incorporating that tool into clinical practice within my organization. I will include other disciplines to develop specific clinical practice guidelines and provide feedback for this project. I will continue to evaluate and disseminate the findings of this project using various modes of communication. It is my goal to have every nurse oriented to the use of alternative interventions like guided imagery.

Role as a Nurse Practitioner

As a scholar practitioner, my professional growth and development will be measured by how I effectively translate the findings of my scholarly project into practice. The translation of evidence is only advantageous if it is disseminated and made available for others to use. My professional focus will continue to be on improving the care of same day surgical patients within my organization.

Role as a Project Manager

As a project manager working on this DNP project, my knowledge and experience were challenged via my writing and developmental skills. As a critical and

analytical thinker, the expectations of this project was inspiring and stimulating. This project also reminded me that culture change is difficult and does not happen overnight. As an advanced practice nurse, it is my mission and vision to continue to use my expertise in practice to help others grow professionally and develop other projects that can improve healthcare nationally.

Summary

Pain management is the key factor to improving patient care. When the issue is not addressed, the cost of healthcare increases and patient satisfaction decreases. The Total Joint Commission (2014) identified that management of pain is an important component of patient-centered care and that patients should expect that their health care providers would involve them in the management of their pain. Likewise, Moucha, et al. (2016) referenced that "managing postsurgical pain was key to promoting early postoperative mobility, reducing medication side effects, and increasing patient satisfaction" (p. 60). In hindsight, the cost of managing pain improved patient safety initiatives and should be implemented across the organization. The use of guided imagery was promoted by various disciplines in order to improve patient safety practice changes based on the evidence and practice standards. Therefore, future research and potential projects should include the development and implementation of specific pain management modalities. These practice modalities should include incorporation of alternative treatments such as guided imagery as a cost effective method for managing pain in same day surgical patients.

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Table 1 *Descriptive Statistics Appendix*

Age	34		44.5 (12.93)
Gender			
Male	13	38.2%	
Female	21	61.8%	
Race			
AA	20	58.8%	
White	12	35.3%	
Hispanic	1	2.9%	
Asian	1	2.9%	
Education			
Less than HS	5	14.7%	
High School	16	47.1 %	
AA/AD	3	0.9 %	
BS	7	20.6%	
MS	1	0.3%	
Doctoral	2	0.6%	
Pain Scores			
Pre-Medication Scores	34		7.00 (1.23)
Post – Med Scores	34		4.94 (1.63)
Post-Guided Imagery Scores	34		1.64 (1.39)

Table 2 *Pain Scores Appendix*

	Mean (*SD*)	p-value
Premedication pain score	7.00 (0.21)	($p < 0.001$)
Postmedication pain score	4.94 (0.28)	($p < 0.001$)
Postguided imagery pain score	1.64 (0.23)	($p < 0.001$)

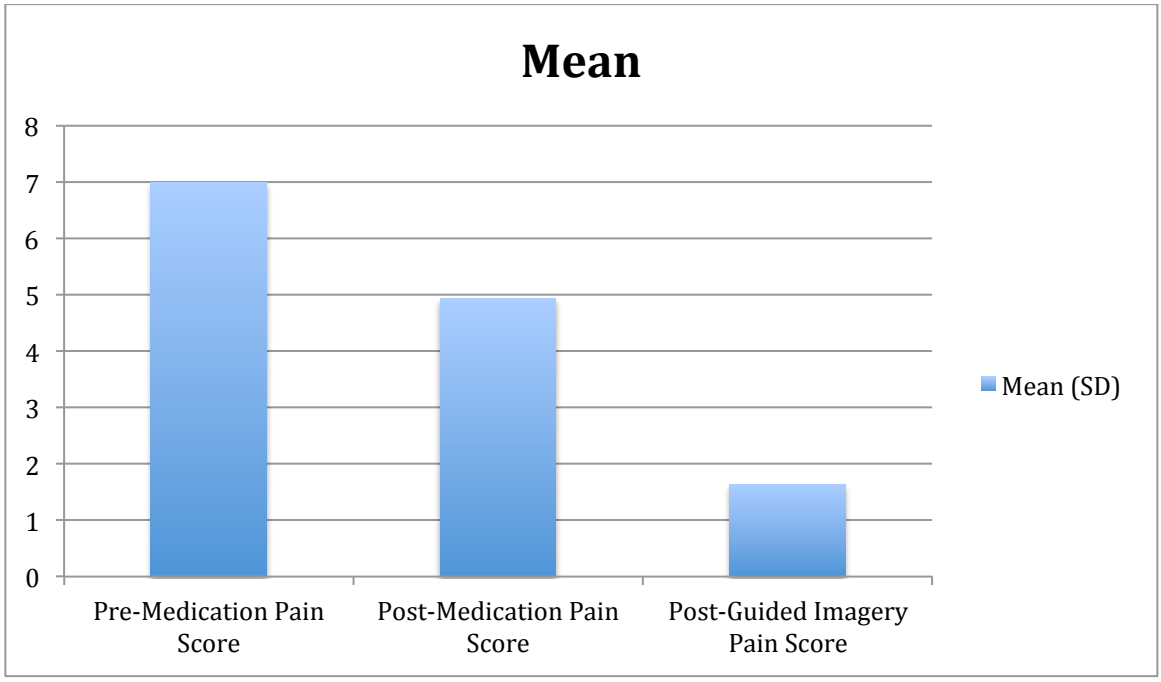

Figure 1. Mean scores.

Appendix A: Pain Data Collection Tool

Age (in years)

Gender:

- Male
- Female

Race:

- African-American or Black
- Caucasian
- Hispanic
- Asian
- American Indian or Alaska Native
- Other

Educational Level:

- High school graduate
- Some college no degree
- Associate degree, occupational
- Associate degree, academic
- Bachelor's degree
- Master's degree
- Professional degree
- Doctoral degree

Type of surgery (write in)

Pain scores:

Rating	Pre-medication	Post-medication	Post-guided imagery
0-4 no pain			
5 moderate pain			
6-10 worst possible pain			

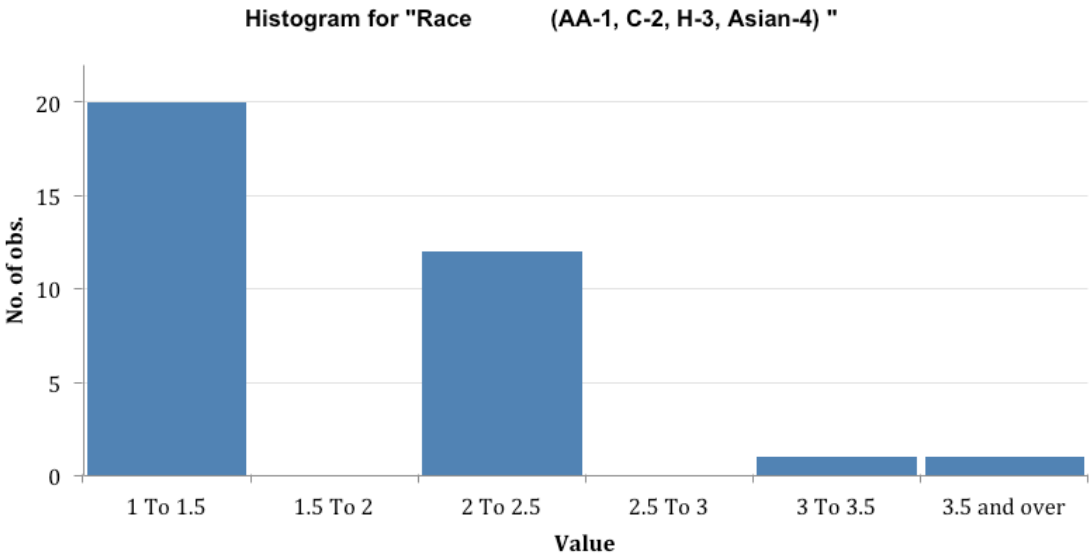

Figure A1. Histogram for race.

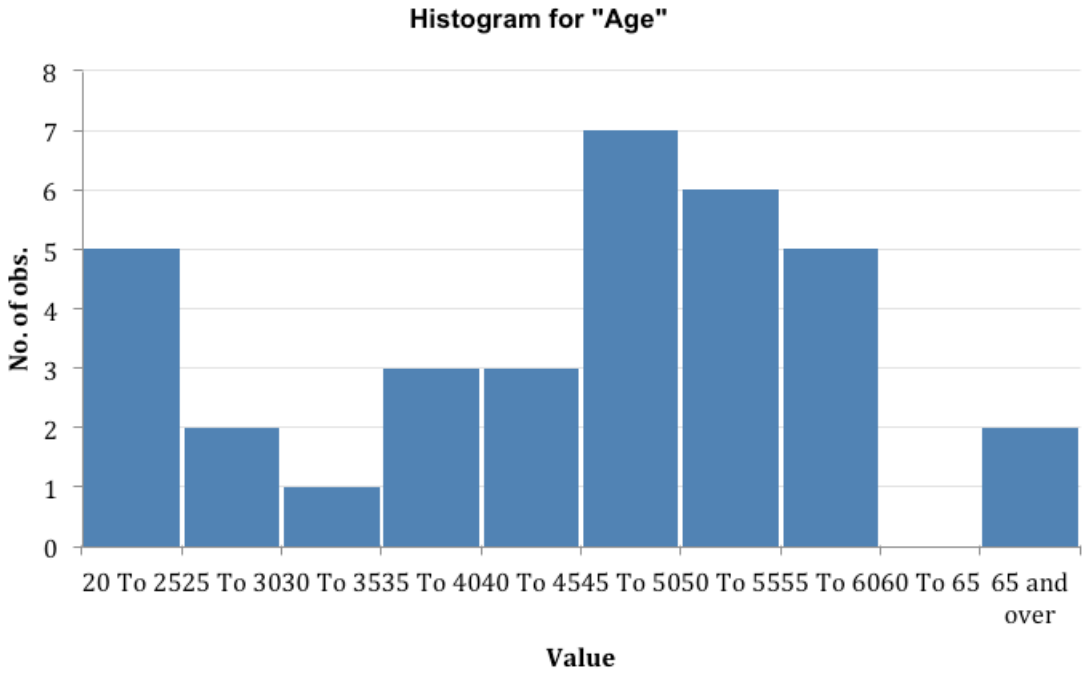

Figure A2. Histogram for age.

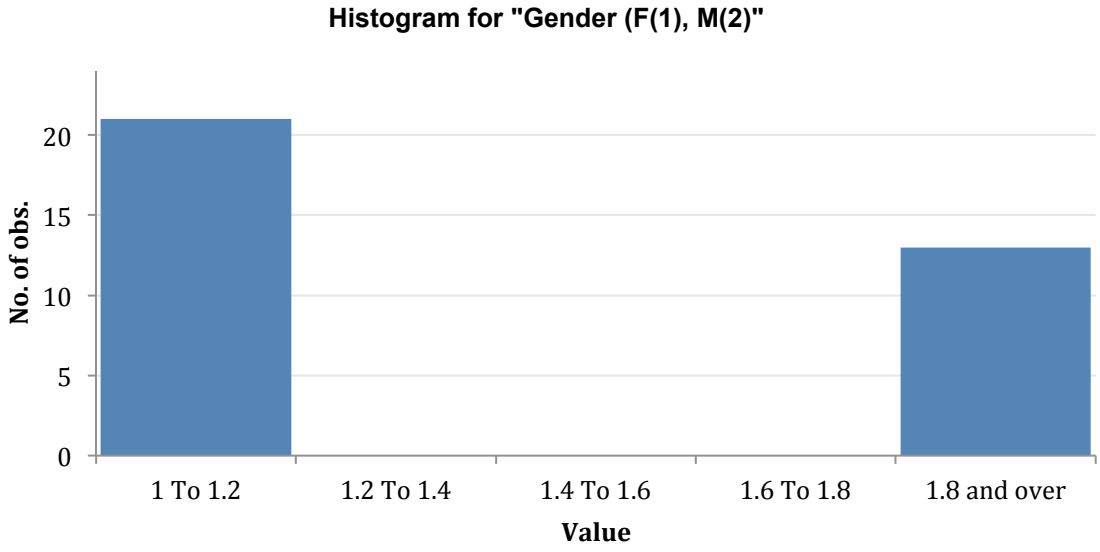

Figure A3. Histogram for gender.

Appendix B: Guided Imagery Process

- Development of a folder that will hold the pilot materials.
- The guided imagery folder will include an outline that will describe the guided imagery intervention to the patient.
- A 30-minute guided imagery intervention will be written out for the nurse to review.
- A short data-collection tool will be used to document the demographics and pain levels of the patients,
- A handout that will be distributed to patients explaining guided imagery.
- A laminated sign that says “please do not disturb; relaxation in progress” will be hung on the patients door.

Appendix C: Practice Recommendations

Practice Recommendations				
	Safety/Harm	□High	□Moderate	□Low
	Cost Effectiveness to organization	□High	□Moderate	□Low
	Health benefit to patient	□High	□Moderate	□Low
	Impact on quality of life	□High	□Moderate	□Low
	Patient Education	□High	□Moderate	□Low